

IOWA HIGHWAY RESEARCH BOARD

Minutes of April 26, 2002

Regular Board Members Present

J. Adam	R. Krauel
R. Ettema	K. Mahoney
J. George	M. Nahra
R. Gould	J. Selmer
L. Greimann	C. Van Buskirk
D. Julius	J. Weber
B. Keierleber	W. Weiss

Alternate Board Members Present

G. Miller for J. Selmer	J. Ites
J. Berger	L. Jesse
L. Brehm	B. Younie

Board Members With No Representation

Open City seat

Secretary

M. Dunn

Visitors

LaDon Jones	<i>Digital Control, Inc.</i>
Matt Keierleber	<i>Independence, Iowa</i>
Gordon Smith	<i>Iowa Concrete Paving Association</i>
Sara Buseman	<i>Iowa Department of Transportation</i>
Dave Claman	<i>Iowa Department of Transportation</i>
Ed Engle	<i>Iowa Department of Transportation</i>
Sandra Larson	<i>Iowa Department of Transportation</i>
Joe Putherickal	<i>Iowa Department of Transportation</i>
Bob Steffes	<i>Iowa Department of Transportation</i>
James K. Cable	<i>Iowa State University</i>
Kejin Wang	<i>Iowa State University</i>
Dale Harrington	<i>Iowa State University/CTRE - PCC Center</i>
Omar Smadi	<i>Iowa State University/CTRE</i>

The meeting was held in the Large Materials Conference Room at the Iowa Department of Transportation, Ames, Iowa. The meeting was called to order at 9:00 A.M. by Wade Weiss.

Agenda review/modification

- Mark Nahra moved to approve the agenda with no modifications. Roger Gould seconded. Carried with 13 yes, 0 no, and 0 abstaining.

Approval of the minutes

- Kevin Mahoney moved to approve the minutes from the March 22, 2002 meeting with no additions or corrections. Doug Julius seconded. Carried with 13 yes, 0 no, and 0 abstaining.

Final report, TR-451, “Investigation into Improved Pavement Curing Materials and Techniques: Part 1 (Phases I and II)”

- Kejin Wang, Iowa State University, reviewed the objectives; the research approach; the tests performed; the test procedures and results, including for conductivity and sorptivity (related to moisture content and degree of hydration); the conclusions; and the recommendations for field research from the final report of this part of the project which included the literature survey and lab investigation.
- Randall Krauel moved to approve the final report TR-451. Jim George seconded. Carried with 14 yes, 0 no, and 0 abstaining.

Problem Statement, “Investigation into Improved Pavement Curing Materials and Techniques: Part 2 (Phase III)”

- Jim Cable, Iowa State University, presented the problem statement for the proposed field-testing (Phase III) of the research reviewed by Dr. Wang in the previous presentation. He included the following: identification of possible construction projects; field test layout, including information on approximately 600 ft. test sections, 5 types of curing compounds (and methods to derive at baselines), and single or double application in different areas; curing material evaluation methods, including maturity, conductivity, moisture loss, sorptivity, relative humidity, permeability, and visual evaluation; and project schedule and budget.
- Some agricultural based curing compounds were looked at also in the DOT Materials lab, but not felt to be at a level to test yet with this research.
- The issue of running into problems with sawing joints in the test area with a double application was discussed. The transverse joints may be able to be soft cut behind the paver, then the curing compound be applied. It is unknown if the joints are to be sealed or not.
- Fred Carlson Paving, Co., the company doing the paving, will be consulted and details agreed upon prior to any construction, with the goal of having as little disruption to their paving process as possible.
- Mark Nahra moved to have Dr. Cable bring a proposal back to the board. John Adam seconded. Carried, 14 yes, 0 no, and 0 abstaining.

Proposal, “PCVAL - A Computer Program for Valley Stage-Discharge Curves and Bridge Backwater Calculations”

- LaDon Jones, Digital Control, Inc., presented the background, the issues, the design methodology, the list of added features, the project supervisor and investigator/programmer, and the budget and dates of the proposed program to be written.
- The option for entering discharges (and other amounts) manually, separate from those programmed in will be allowed. The layout and capability will be similar to that of the previous program that Dr. Jones did for the board (TR-447, “A Computer Program for the Hydraulic Design of Culverts”). This program was shown to give a visual idea of the future program’s design.
- The program will be tested against several hand-calculated examples as it is written. If there is a bug in the program, Dr. Jones will correct the problem. If there are features that are requested by the Board to be added to the program, Dr. Jones can be approached about further work.
- Ownership of the program will work as it did with TR-447; it will be owned and distributed by the DOT. It will also be made available on-line through the DOT website.
- There will be a users manual included with this project but formal training was not included in this budget. At a later date, the Board will discuss the issue of training, to ensure that the users have the information to run the new software effectively.
- Mark Nahra moved to approve the proposal. Brian Keierleber seconded. Carried, 14 yes, 0 no, and 0 abstaining.

Review of final drafts of Requests for Proposals (RFPs) for second solicitation for FY 01-02

- Mark Dunn reviewed the addition of alternative construction practices to the RFP, “Determination of the Optimum Base Characteristics for Pavements.” The Board approved the change.
- Mark Dunn updated the Board on the development of the edge rutting RFP. A report was received from a Process Improvement Team in District 2. The team is going to look at 2 other aspects including the specifications for aggregates to be tightened up and testing moisture variables during repair. With the amount of information collected by the district team, it was decided that a copy of the report will be sent out to the Board and Mark Dunn will discuss a more specific direction with the team and then bring that information back to the Board.
- The RFPs on “Evaluation of Hot Mix Asphalt Moisture Sensitivity Using the Nottingham Asphalt Test Equipment” and “Identification of the Best Practices for the Design, Construction, and Repair of Bridge Approach Sections” had already been approved by the Board. All of these will be sent out following the meeting.

New topic brainstorming

- The Board members and alternates made suggestions for research topics to be considered for requested research during the fiscal year 02-03. After the members and alternates, the room was opened up for suggestions from others. These topics, along with the topics that were submitted

to Mark Dunn separate from the brainstorming session, will be grouped appropriately and sent out to the members and alternates for prioritizing.

- Any other research topics of interest for next fiscal year's priorities should be gotten together and given to Mark Dunn prior to the list being sent for initial prioritization.
- The issue regarding how unsolicited proposals are handled was brought up. Specifically, when an unsolicited proposal is submitted without circumstances requiring immediate action (joint funding, specific construction project features that may not be available later, etc.), would the project be subject to an RFP or would the submitting party be exclusively invited to respond? This issue will be added as an agenda item for the May 2002 meeting.

New Business

- It was mentioned that e-mailing the board packet allowed more time for review and helped it stand out more than when receiving it in the mail.
- The Board was reminded that the meetings should be more evenly spread with items to be covered once we are to the new fiscal year and we are more closely following the Calendar of Activities listed in the Business Plan.
- The Board will soon determine where the traveling meeting (likely the June meeting) will be held for the year. A few suggestions were given for consideration including Buchanan County, The University of Iowa, and Hwy 20 in Hardin County. Any additional member or alternate input should be given to Mark Dunn.

Wade Weiss adjourned the meeting.

Date of Next Meeting:

THE NEXT MEETING WILL BE HELD FRIDAY, MAY 31, 2002 AT 9:00 A.M. IN THE LARGE MATERIALS CONFERENCE ROOM, AT THE IOWA DOT, CENTRAL COMPLEX, IN AMES, IOWA.

Mark Dunn, IHRB Secretary